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THE RUINS OF CENTRAL AMERICA.

PART III.

I VENTURE to offer here a few observations on the conditions of life in elevated regions. Some writers have asserted that, at altitudes over twelve thousand feet, human life is shortened by at least one half. Now, at Tlamacas, where I found myself among the Indians who take out sulphur from Popocatepetl—that is to say, among people who live at an elevation of nearly twenty thousand feet—every one appeared to enjoy good health. The foreman, or *volcanero*, as he is called, has worked for twenty-seven years in the volcano, and his brother thirty-two years, yet both are strong and healthy. Others have worked from fifteen to eighteen years without experiencing any ill effects whatever, and it is only those who indulge in strong drink that are short-lived. Here, again, I must challenge the judgment of certain authors who hold that at high altitudes spirituous liquors are specially harmful. Excess works the ruin of all those who abandon themselves to it, but every one of the laborers in the volcano takes, in the morning and in the evening, and sometimes at noon, a good draught of *mezcal* or *habanero*. They say that without the grog they could not endure the climate or undergo the fatigue. Nevertheless, their triple ration of spirits would be for a stranger far in excess of moderation.

EXPEDITION TO THE MISPAYANTLA BARRANCA.

A *barranca* is a deep valley with perpendicular walls between mountains; the barranca of Mispayantla is one of the most picturesque of them all. Beginning at the Friar's Peak, at the very foot of Popocatepetl, it stretches toward the west till it debouches in the plain of Ameca. When I was in this region before, the Indians brought to me sundry objects in terra-cotta purporting to come from this barranca. Further, they spoke of caves or grottoes, and

now I determined to explore them. Accordingly, on the 13th of July, accompanied by a guide and three Indian laborers, I visited the barranca. The grottoes are situated at the height of two hundred and thirty feet from the ground, and my Indians had to cut steps in the rock and clay to enable me to reach them.

At first sight the effect was a grievous disillusion, for the caves are simply immense rock-shelters. Into the largest one, which has an opening one hundred and forty feet in length, one can penetrate on all-fours for a distance of forty or fifty feet ; but the place is quite uninhabitable, owing to the infiltration of water. Certain diggings and dirt-heaps gave evidence that we had been preceded here long before by other searchers, and all appearances went to show that these caves had never been used except as a temporary habitation or as burial-places.

Broken ornaments and fragments of skulls lay scattered here and there, but there was nothing worth collecting. Two wooden crosses showed that the Indians were not unmindful of their forefathers. The two smaller caves could at best only afford shelter from rain. Still, from the few fragments we gathered, we may in some measure divine the end and aim of the men who took refuge in these inaccessible heights. We found handles of saucepans of all sizes and of different kinds of clay, some of them neatly fashioned, others rudely. Then we found fragments of red earthen vases with a fair glaze, and striped with black ; an unfinished idol representing Tlaloc ; a tube with holes bored in it, and which may be part of a flute. In all probability these caves were occupied as places of refuge by the Indians after the conquest, to escape from the persecution of the Spaniards and the hard labor in the mines. Here they lived in misery, and here they buried their dead. The caves are situated ten thousand four hundred feet above sea-level.

An Indian of considerable intelligence has given me a new explanation of the cemetery of Tenenepanco : I find nothing of the kind in the historians of the conquest. They merely tell us that, though sometimes the Indians buried their dead high up in the mountains, they usually buried them in their houses, in their gardens, or in the immediate neighborhood of their homes. According to my Indian informant, all the agricultural populations around about Popocatepetl paid special worship to Tlaloc, the rain-god. He was their principal god, and from him came the harvests, both good and bad. When there was plenty of rain, there were abundant crops ; when rain failed, there was famine. These rural popula-



CARICATURE IN TERRA COTTA OF A FRIAR
Found by M. Charnay at the Cemetery of Tenenepanco.



TYPES OF VASES

Found by M. Charnay at the Cemetery of Tenenepanco.

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tions were accordingly wont not only to dedicate themselves to the service of this god, but also to consecrate to him their dead, in the hope of thus winning his favor; and as they supposed Tlaloc to inhabit the high places, and especially the volcano from which the storms descended upon the lowlands, they carried their dead up into the mountains. The great number of idols representing Tlaloc, and the many vases bearing his image, found by us in the cemetery, go to confirm this tradition.

On the 15th of July we visited the mounds at Ozumba and at Chimal, now inconsiderable villages, but anciently great centers of population; they are situated about ten miles to the south of Amecameca. The Indians call these mounds *cue* in the singular, *cues* in the plural (*graves*). A singular mound stands in the middle of the village of Ameca, and this, like all the others, belongs to Indians. Now, the Indians are extremely distrustful when you ask whether the *cue* belongs to them. They hesitate at first, and then answer: "Yes; but they are in partnership with such a one; they only rent it; they will have to consult this one and that; in short, they must have time to think the matter over, and they will give an answer in four or five days." It is no use to assure them that you will pay twice over for any damage done by opening the mound. After having been held in suspense for many days, I obtained from the owner of the ground on which the Amecameca mound stands permission to open it.

At the foot of the mound is an abandoned chapel, and half way up its side is the house of the Indian who owns the ground. At the base it measures two hundred and ninety-six feet by two hundred and thirty. It no longer possesses its original form, and has been reduced in height, and the contour of its sides has been altered. Its present height is nearly thirty feet, and the Indian tells me that he has removed the earth to the depth of eight feet from the top to add it to the sides. Having ascertained the center of the mound, we sunk a shaft four metres (thirteen feet) square. As the work went on, some fragments of ancient pottery were found, some of a brilliant red color, and covered with figures in a very primitive style of art. These fragments of pottery were part and parcel of the soil used in the construction of the mound, and, of course, antedate it. Besides pottery we found adobes, and a great number of large cobble-stones. Some specimens of cut stone, too, were found, proving that the Chichimecs succeeded to a long-extinct civilization.

Amecameca was one of their earliest stations on the plateau, and thence they went to Tenayuca, finally transferring their capital to Tencaco. At the time of the conquest, theirs was the most brilliant civilization of the valley of Mexico ; and the illustrious reigns of Netzahualcoyotl and Netzahualpilli, by their advanced ideas, their arts, their literature, and their philosophy, eclipsed the more pretentious empire of Montezuma. The Chichimecs had been the predecessors of the Aztecs on this plateau, and had been the first to acquire the idea of civilization from the Toltecs, by forming alliances with certain Toltec tribes who remained behind when the main body of their nation quit Chalula, and directed their steps southward.

However this may be, the sameness of their idols, the peculiar form of their temples, and the resemblances existing between their articles of use and of ornament all go to establish a relationship between these different populations of Anahuac ; and the civilizing impulse given to them all by the Toltecs has, so to speak, fused them into one single nation. Later, we shall observe quite different results among races conquered by these same Toltecs—for instance, in Yucatan ; and there we will endeavor to discriminate between the monuments of the conquered race and those of the conquerors.

But this resemblance of the antiquities of the Anahuac nations among themselves is not restricted to the period when the Aztec empire existed at its highest degree of civilization ; it is traceable back to the earliest times among the races who preceded the Aztecs—at Teotihuacan, for instance.

The shaft was sunk down to the general level of the surrounding ground without bringing to light any remains other than such as have already been mentioned. We found no human remains whatsoever. Possibly the changes made in the contour of the mound have displaced the relative position of its original center ; possibly, too, Indian tradition and Indian nomenclature may be at fault, and, instead of being a funereal mound, it may be the base of a temple. But, though we failed in the principal aim of our search, we nevertheless discovered a few objects of interest, among them a *marble*, which shows that the children of this ancient race played one of the games familiar to our own children. Then we found a terra-cotta head, admirably modeled, of a type entirely different from all others we have seen ; the coiffure, too, is absolutely unique. I found also the jawbone of a wild-boar and the jawbone of a hare.

Better success attended my researches in another direction. The existence of the cemetery of Tenenepanco in the heights of the Sierra having led me to infer the existence of similar burial-stations, I made inquiry among the Indians, who mentioned several places where, as they said, *tepalcates* (fragments of pottery) were to be found. A visit to the localities indicated was without results of any moment. But, on inquiring of other Indians, I was so fortunate as to obtain from one of them sundry specimens of pottery and a few idols of stone. I asked where he had found them, but he at first declined to indicate the exact spot. At last, on my promising to pay him twenty dollars, he agreed to conduct me to the place.

Accordingly, on the 28th of July, at six o'clock in the morning, I was on the road, accompanied by Huberto, the Indian in question, three laborers, and a *tlacualero*, or man to fetch us our provisions each day. After clambering up the sides of Iztaccihuatl for seven hours, we reached its summit. At our feet lay an oblong valley, about a mile and a quarter in length by half a mile in width.

This little valley reminds me of the "happy valley" of Rasselas. It is separated from the rest of the world by its mountainous walls, which externally present a front of crags, while on the valley side they descend in gentle slopes. These slopes are covered with stunted pines, for here vegetation reaches its limit. Higher up nothing is seen but the naked rock. In the valley itself not a tree is to be seen, but the black soil is covered with a heavy growth of grass; and the unfortunates who fled from the tyranny of the Spaniards could nowhere else have discovered a more secure refuge. Indeed, we find ourselves here in presence, not of a cemetery, as at Tenenepanco, but of a spot that was inhabited for a considerable length of time after the conquest.

The place is called Apatlatepitonco. Tradition is silent about it, but a survey of the ground and a study of the objects found will enable us to reconstruct its history. This spot was once inhabited, for we find traces of dwellings. Then at the northwest end of the valley is seen a pond, two hundred feet in diameter, excavated by the hand of man, and which was designed to hold the water-supply. Two oblong quadrangles surrounded by stones showed where the dead were buried. I will now state the results of our digging in this spot.

In my impatience I at once set the men to work, and in less than twenty minutes we found some forty vases, plates, cups, etc. The vases are of the same shape and of the same style as those of Tene-

nepanco, but they are of a less fine clay. They give evidence of less skill, or of a lack of appropriate material. The unfortunates who took refuge in this remote locality had not at their disposal the facilities enjoyed by the dwellers in the plain, and their life must have been one of privation.

We observe at the first glance a great difference between Tene-nepanco, which was simply a burying-place, and Apatlatepitonco, which was a place where men lived. But in both the same religion prevailed—the worship of Tlaloc; there were the same customs, the same instincts. I found several idols of stone, some of them very large, others smaller, but all with their surface corroded, the polish gone. None of the idols found at Tenenepanco were of stone, but all of terra-cotta. I take from my journal the following notes of the progress of the work of excavation :

July 30th.—We open a trench, following the direction of certain stones planted vertically, most of them from two to three and a quarter feet in height. Each of these stones seems to indicate a grave. At each we find vases bearing the figure of Tlaloc, buried from sixteen to twenty-four inches beneath the surface. They are nearly all broken or decomposed, but a few are whole. We find no bones, strange to say. The first day our trench attained the length of twenty feet, and we collected about one hundred objects of every kind—plates, cups, vases, idols. These vases, as has been already said, are of coarse clay, and are to all appearance very ancient. After all, this valley may have been inhabited, not as a refuge from the persecuting Spaniards, but as a center of religious worship. The presence everywhere of images of Tlaloc, the god of rain, would seem to confirm this supposition.

July 31st.—After a cold night, with wind and rain, we resume work in the morning. Our first find was a large vase or urn, with wide mouth, but broken, containing twenty-two small stones without any sort of mark. What do these stones mean? Possibly they indicate the age of the deceased. Again no trace of bones. This grave was three feet three inches in depth, and it was eight feet beneath that we found the urn. During the day, we found about the same number of vases as yesterday, and in the same style, yet the figure of Tlaloc on each presents notable differences. The terra-cotta idols are always rude or grotesque, and all of the self-same hieratic type.

August 1st.—To-day we visit the pond or reservoir. Here we observe half a score of stone mounds round about the pond, while

a larger group occupies its center. In the middle, after removing the stones, I had an excavation made three feet four inches square, though not without difficulty, as the water kept filling the hole. It was labor in vain, for we found not a single memorial of the past ; so we went back to our work in the valley. The head man of our Indians, a man of intelligence, and who seems to be versed in the traditions of his people, assures me that not long ago there stood in the middle of the pond—he saw it himself—a stone cross, and that on each of the other stone mounds in the pond was a cross of wood. It is more than probable that these crosses were erected by Christianized Indians, at a time long after the conquest. Tradition says (it is my Indian informant who speaks) that, while idolatry reigned, the people from round about used to come in processions, as on pilgrimages, to this valley, consecrated to their favorite deity, and that Tlaloc was wont to manifest himself to his faithful worshippers in the middle of the little lake, which contained his *adoratorios*.

August 2d.—The same labor, with like results ; we have all that we can do to cleanse the vases found by our laborers. To-day we add to our collection two pairs of pottery specimens that are quite unique.

August 3d.—Among the objects found to-day, one is worthy of special mention, viz., a face bearing the grinning visage of Tlaloc, like all the rest. But here the ornamentation is carried to a degree of exaggeration, and the right hand of the figure holds a perfectly modeled serpent. We also found a fragment of another piece of pottery, on which again was modeled a hand holding a rattlesnake. We still discover no bones. It is doubtful whether there is a human body buried in this valley. Nevertheless, there is no question but that the place was at one time a cemetery and a dwelling-station.

August 4th.—To-day, beyond the usual objects, we found only some of those large broken vases with a number of stones, varying from twenty-five to thirty, and supposed to indicate the age of the deceased. Our labors here are nearly ended. We have nearly six hundred specimens ; the field has been thoroughly explored, and the mine is exhausted. We shall quit the place to-morrow. As we are about to leave, we find among some *débris* an object which recalls the conquest, viz., a flat piece of terra-cotta, on which is unmistakably modeled the figure of a *caballero*. The inference is plain that this place was inhabited at the time of the conquest and later. But it must have been abandoned soon afterward, else we

should have found memorials of that time in greater numbers. On August 5th we are again in the city of Mexico.

One word more about the figure of a Spanish *caballero*. The Indians had certainly made a god of him, for they fashioned him after the manner of their idols. The flat piece of terra-cotta containing his image is identical with those which bear the image of Tlaloc. In short, the conquerors passed for gods, but only during the first few months after the conquest. The specimen must date from the year 1520, and it is worthy of note that, while the Indians were making a god of the warrior, at the same time they were caricaturing a priest. They felt the power of the one, but as yet they knew not the function of the other.

THE STONE AGE AMONG THE MEXICANS.

It has been said that the highest American civilizations belong to the neolithic period. On this subject we may offer a few remarks that will not be without interest. In the first place, their neolithic age was a period of transition. The Mexicans used copper—tempered copper. Of this material they made ornaments and hatchets, and in all probability they dressed hard stones with an instrument of tempered copper.

Their stone age was far more advanced than the corresponding stone age of Europe and other parts of the world. Curiously enough, as a rule, their hatchets, chisels, and gimlets, though of nearly the same shape as those of Europe, will not bear comparison with instruments of the same class found in Denmark or in Celtic Gaul. The Mexican arrow-heads of quartz or of obsidian, too, were inferior; indeed, they are far from possessing the finish observed in similar weapons made by the Indians of California.

This carelessness on the part of the Mexicans seems to have been deliberate, the result of some traditional idea. I have a number of these weapons, and they are all ill-shaped and rude.

On the other hand, nowhere else do you find stone jewels belonging to the same period that are of so high a finish, so exquisitely polished, or so artistically wrought. I have seen sculptured heads that might compare with the sculpture of Egypt, of Rome, or of Greece.

The neolithic age of other nations shows no such artistic taste as that which distinguishes the textile fabrics, the painting, the writing, etc., of the Mexicans, or their sculptured or molded heads, some of which are genuine masterpieces.

Neither has the stone age in other countries left structures so remarkable as those of Yucatan, structures which, in the Old World, would be considered as belonging to the most advanced periods. Architecture among the Aztecs, but still more among the Yucatecans, attained so high a degree of artistic development as to excite our wonder.

In their moral institutions, too, and in the philosophic spirit that animated a certain class of the population, these ancient American nations differed from the stone-age populations of Europe. To understand this, we have only to read in Sahagun the moral instructions addressed to children, and the same author's account of their mode of educating the young. In these respects they had nothing in common with the stone age ; they had passed far beyond it.

We may add that Europe was lifted out of the savagery of its stone age by the Phœnicians and Carthaginians, who in their ships visited the seacoast and the shores of the Baltic to barter their products, among them bronze hatchets, for amber, thus initiating the rude populations of Europe in the working of metal. On the other hand, the Toltecs, Chichimecs, Aztecs, etc., isolated as they were from the outer world in the interior of their continent, were forced to pass unaided through all those protracted trials which lead a people from one stage of culture to another. This circumstance undoubtedly rendered their progress more slow (though in my opinion it was very rapid), but it did not tend to arrest the development of their artistic tastes by occupying them with a multitude of other branches. They have this advantage over divers nations of the Old World, that they appear to have risen by their own efforts.

DÉSIRÉ CHARNAY.